



LOS ANGELES DEPARTMENT OF WATER AND
POWER

POWER SYSTEM RATE ACTION REPORT

Chapter 1: Executive Summary

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EXECUTIVE SUMMARY

1.1 PURPOSE AND OBJECTIVES FOR THE PROPOSED NEW RATES AND RATE STRUCTURE

The Los Angeles Department of Water and Power (LADWP or the Department) is the nation's largest municipal utility and supplies power to nearly four million citizens of Los Angeles. The Board of Water and Power Commissioners (Board) is currently obligated under Charter Section 609(c)¹ and the Master Resolution to establish rates for electric service (Power Rates) and collect charges in an amount which, together with other available funds, will be sufficient to service the Department's Power System indebtedness and pay the necessary expenses of operating and maintaining the Power System. Necessary expenses include meeting regulatory mandates and investing in infrastructure for better reliability.

LADWP has taken important steps to reduce the need for rate actions since the last power base rate action in 2012, including, but not limited to, negotiating new labor contracts, exploring innovative financing mechanisms and undertaking cost cutting measures. However, the Department is at a point where rate increases are necessary in order to meet its various commitments.

To collect adequate revenue to fund the revenue requirements in a balanced manner while ensuring sustainability objectives are met, the Department is proposing several changes to both its power rates and overall rate structure.

Through the duration of the proposed five-year rate period, revenue collected will allow the Department to improve customer service and achieve the following business goals:

- Infrastructure Reliability—Through the Power System Reliability Program (PSRP), invest approximately \$4.5 billion in capital and O&M to improve system reliability including the replacement of 27,000 poles, 60 miles of cables and 3,350 transformers;
- Power Supply Transformation—Invest \$5.1 billion² to rebuild local power plants and transition off coal while generating 33% of retail sales from renewable energy by 2020;

¹ For full text see:

[http://www.amlegal.com/nxt/gateway.dll?f=jumplink\\$jumplink_x=Advanced\\$jumplink_vpc=first\\$jumplink_xsl=querylink.xsl\\$jumplink_sel=title,path,content-type:home-title,item-bookmark\\$jumplink_d=california\(laac\)\\$jumplink_q=\[field%20folio-destinationname:%27Ch609.%27\]\\$jumplink_md=target-id=JD_Ch609](http://www.amlegal.com/nxt/gateway.dll?f=jumplink$jumplink_x=Advanced$jumplink_vpc=first$jumplink_xsl=querylink.xsl$jumplink_sel=title,path,content-type:home-title,item-bookmark$jumplink_d=california(laac)$jumplink_q=[field%20folio-destinationname:%27Ch609.%27]$jumplink_md=target-id=JD_Ch609)

² This amount does not include the budgeted spending for Customer Opportunities Programs.

- Energy Efficiency—Invest \$878 million to expand energy efficiency programs to save 2,489GWhs of energy usage; and
- Customer Solar Programs—Invest \$356 million to enable the growth of the Solar Incentive Program (SIP), Feed-In Tariff (FiT) and Utility Built Solar (UBS) programs.

In addition to these goals, the Department is proactively taking initiative to reduce the O&M costs associated with the currently higher than normal level of uncollectible revenue resulting from the recent new customer information system (CIS) implementation. These efforts include increasing self-service options, reducing use of estimated bills, reducing collection thresholds, decreasing call wait times, and other actions that are designed to reduce the level of uncollectible revenue from 1.56% in FY 2014-15 to 1.00% in FY 2019-20.

1.2 REVENUE REQUIREMENT AND RATE DRIVERS

In developing the rate proposal, LADWP was committed to striking the right balance among continuing to meet regulatory requirements, providing reliable service, planning for a sustainable power supply transformation, and maintaining reasonable rates. The key programs and drivers that contribute to the proposed revenue requirements and rates include:

- Infrastructure Reliability (PSRP);
- Power Supply Transformation;
- Customer Opportunities Programs:
 - Energy Efficiency;
 - Local Solar; and
- Fuel Costs.

The Department is planning to spend a total of \$13.2 billion in O&M and capital across all the programs mentioned above over the next five years. Current revenues will be inadequate to fund the above programs with a projected shortfall of \$900 million (an average of \$180 million per year) during the proposed five-year rate period from FY 2015-16 to FY 2019-20. Figure 1 outlines the year-over-year (YOY) impact of each of the rate drivers on the increased revenue requirement and also demonstrates that most of these costs are regulatory driven.

Figure 1: Year-Over-Year Component Breakdown of Proposed Retail Rate and Revenue Requirement Increase Compared to FY 2014-15

Program	Rate Driver	Regulatory (or Other External) Requirement	Average Annual Revenue Requirement Increase (\$M)	System Average Annual Increase (¢/kWh)	Avg. Annual Percentage Increase (%)
Power System Reliability Program	Power System Reliability		26	0.11	0.68%
Power Supply Transformation Program	Coal Replacement	✓	17	0.07	0.48%
	Once-Through Cooling	✓	4	0.02	0.09%
	Renewable Energy	✓	36	0.15	0.96%
	Subtotal		57	0.24	1.53%
Customer Opportunities Program	Energy Efficiency	✓	60	0.26	1.54%
	Customer Solar Programs	✓	18	0.07	0.46%
	Subtotal		78	0.33	2.01%
Fuel Costs			18	0.08	0.46%
Total Average Annual Increase			\$180	0.76	4.68%³

1.3 ASSUMPTIONS AND RISKS ASSOCIATED WITH THE PROPOSED PLAN

The Department’s Power System financial plan and resulting proposed rates are based on certain assumptions related to future expenditures and consumption. Figure 2 summarizes some of these assumptions and potential risks.

Figure 2: High Level Assumptions and Risks of Proposed Plan

Assumption	Description	Risk/Implication
Energy Efficiency (EE)	Based on the Board's goal for a 15% reduction in energy usage by 2020	If load growth is greater than reflected in the financial plan, the overall generation supply could be altered resulting in a ripple effect through the RPS projections, fuel demand, and price of electricity. However the risk is mitigated by pass-through adjustment factors in the rate structure, which can be adjusted quarterly to reflect actual costs and other changing conditions.
Regulatory	Assumes known and	Regulatory mandates direct a significant portion of Department

³ All proposed rates are developed based on Financial Plan Case Number 19.

Assumption	Description	Risk/Implication
Mandates	consistent regulatory obligations for the Department	expenditures. Volatile political environments or changing mandates could force the Department to spend even more to meet legal obligations. Most Department obligations mandate significant structural changes and a timeline of compliance of several years, so compliance will likely extend beyond the rate action time period.
Financial Market Conditions	Assumes current market conditions with low steady inflation, returns on investment and bond rating	If market conditions change, LADWP's decoupled rate structure ⁴ will likely ensure adequate cost recovery and eliminate over-collection if market conditions become even more favorable.
Adoption of Customer Programs	Assumes projected adoption of customer programs, such as local solar and EE programs	Customer programs such as local solar and EE are significant rate drivers. If adoption of these programs is diminished over the rate period, total program spending and the revenue requirement could be impacted. This effect would largely be balanced through higher electric supply prices and overall load growth.

1.4 COST OF SERVICE STUDY PROCESS AND SUMMARY RESULTS

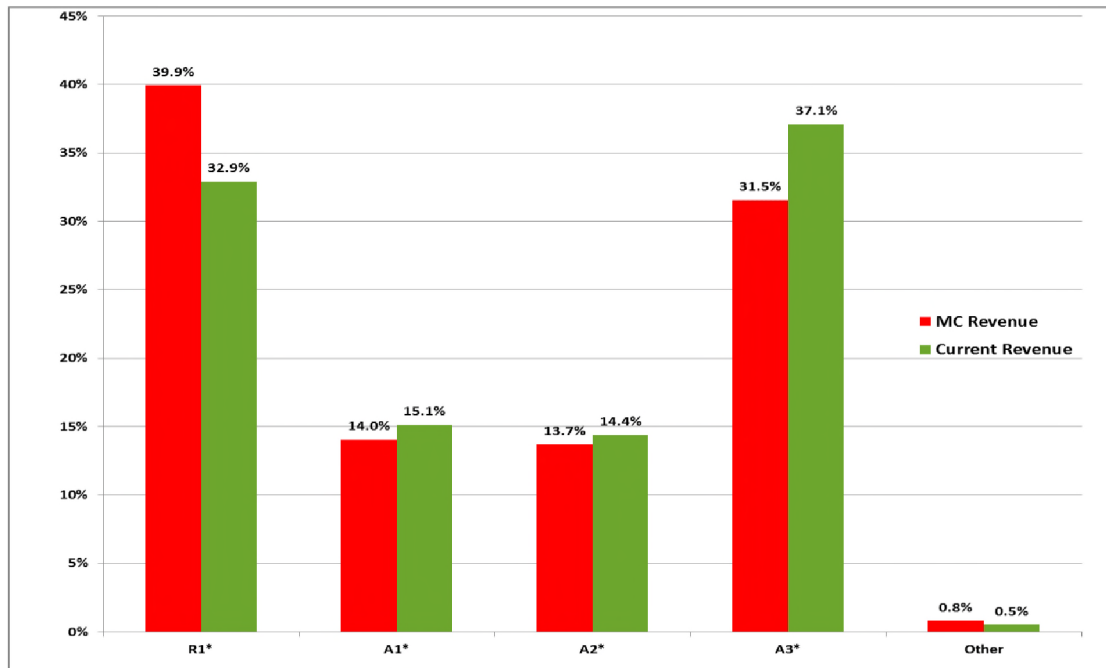
On October 2, 2012, the Los Angeles City Council approved LADWP's Incremental Electric Rate Ordinance No. 182273 to provide incremental rate adjustments for FY 2012-13 and FY 2013-14. In its action to approve LADWP's power rates, the Council, along with other recommendations, requested that LADWP "conduct a new formal cost of service study in order to prepare for future power rate restructuring." Therefore, LADWP has completed a marginal cost of service study for its Power System to evaluate the power service cost of service and ensure that rates are cost based.⁵

Figure 3 provides a comparison of the FY 2012-13 test year marginal cost revenue requirement and current revenue percentages for each customer class.

⁴ LADWP's proposed approach to decoupling is discussed in Chapter 5.

⁵ Even in the absence of the Council's Motion, periodic cost of service studies are a common industry practice.

Figure 3: Comparison of Marginal Cost Revenue Requirement and Current Revenue Percent by Customer Class



Results of the marginal cost of service study indicate the marginal cost revenue requirement percentage for the residential (R1) customer class is 39.9%, while the corresponding percentage of current revenues for FY 2012-13 is 32.9%. Conversely, the Industrial (A3) customer class is allocated a lower revenue requirement of 31.5% compared to 37.1% of the current total revenues. These results were supported by an embedded cost of service analysis, which produced similar customer class percentages as the marginal cost of service study. Marginal cost of service study principles and methodologies are discussed in more detail in Chapter 4 of this report.

The percentages for each customer class as calculated from the marginal cost of service study were used to guide allocation of the total revenue requirement to customer classes through the rate design as discussed in Chapter 5 of this report. Rates for each major class of customers will be designed to recover approximately the portion of the revenue requirement assigned to each class based on the cost of service study results, consistent with legal considerations.

1.5 RATE DESIGN SUMMARY

LADWP proposes changes in the electric rate structure and rates to be implemented in late 2015. The electric rate changes are designed to provide financial stability to support LADWP's efforts to sustainably improve infrastructure reliability, meet renewable energy and energy efficiency goals, and follow legal and regulatory requirements. The Residential customer rate

structure is designed to provide a transition to rates that reflect the nature of the underlying costs while encouraging the expansion of customer solar and other distributed generation investments.

1.5.1 Legal Considerations

In its report on the last Power System rate action, the Ratepayer Advocate (RPA) proposed that LADWP reevaluate and consider replacing the surcharge-based restructuring approach with fully restructured permanent rates. The City Council made the same recommendation when it approved the 2012 rate action. Consequently, LADWP has evaluated the current approach to the ordinance structure.

While there may be a desire to undertake a modification of the current rate structure to provide a simpler rate framework, several lawsuits have recently been filed asserting that Proposition 26 does not permit LADWP's annual transfer of monies, financial conditions allowing, from the Power Revenue Fund ultimately to the City's General Fund. The City disputes the merits of those lawsuits. While the transfer is being contested, the City will continue to adopt an electrical rate structure that preserves the rates in effect on November 3, 2010, and layers incremental charges on top of them. Therefore, for purposes of the current rate action, LADWP proposes that the results of the cost of service studies and the impact of the new revenue requirements for power service be applied to only the Incremental Electric Rate Ordinance.

1.5.2 Net Energy Metering and Renewables

LADWP maintains a Net Energy Metering (NEM) rate structure to encourage customers to implement renewable generation such as solar. LADWP's NEM program allows a customer's load from the grid to be offset by the energy delivered by the customer to the grid at the full retail rate for the energy. Customer solar generation at retail energy rates can offset all charges except minimum charges up to the value of the bill. The LADWP NEM program structure provides greater incentive for renewables and distributed generation than many other utilities' programs. LADWP proposes to maintain this structure to provide its customers substantial incentives to install customer owned solar generation.

This aspect of the rate design will help LADWP move toward a more distribution based utility, indifferent to the type or cost of customer generation. In addition, by phasing in the changes to rates, this transition is achieved in a gradual, sustainable way.

1.5.3 Phased in Rate Change

The overall rate changes required to cover the increased cost of necessary power reliability program enhancements, power supply replacement including mandated requirements and customer opportunity programs such as energy efficiency will be phased in over a five-year period. This approach will moderate the effect of the rate increases while ensuring Board approved financial metrics continue to be met. In addition, some changes to the rate design are also required to maintain reasonable and cost based rates for all customers. Figure 4 shows

the overall annual rate change by customer class and by year for each year of the proposed five-year rate period.

Figure 4: Proposed Average Electric Rates and Annual Percentage Increase by Customer Class

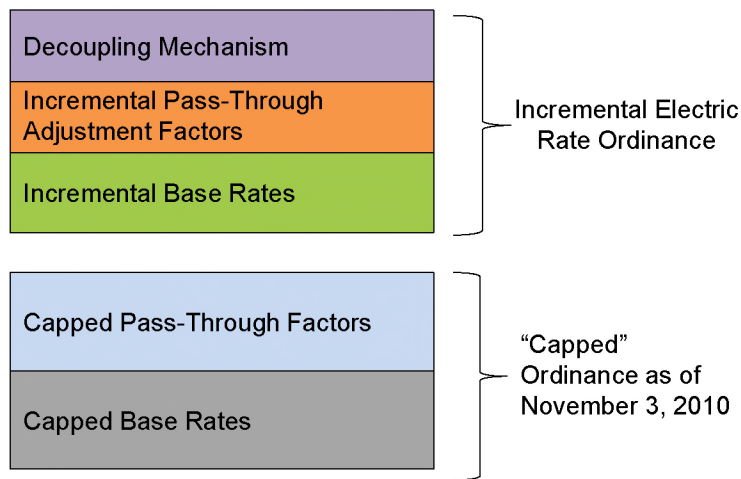
Class	FY 2014-15		FY 2015-16		FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		Five-Year Average
	\$/kWh	\$/kWh	Annual %	\$/kWh	Annual %	\$/kWh	Annual %	\$/kWh	Annual %	\$/kWh	Annual %	Annual %	
R1A	\$0.1515	\$0.1595	5.3%	\$0.1656	3.8%	\$0.1767	6.7%	\$0.1849	4.7%	\$0.1953	5.6%	5.2%	
A1A	\$0.1753	\$0.1814	3.5%	\$0.1862	2.6%	\$0.1958	5.2%	\$0.2025	3.4%	\$0.2112	4.3%	3.8%	
A2B	\$0.1556	\$0.1622	4.2%	\$0.1676	3.3%	\$0.1777	6.1%	\$0.1850	4.1%	\$0.1943	5.0%	4.5%	
A3A	\$0.1391	\$0.1447	4.1%	\$0.1498	3.5%	\$0.1595	6.5%	\$0.1662	4.2%	\$0.1748	5.2%	4.7%	
System Average	\$0.1506	\$0.1573	4.4%	\$0.1627	3.4%	\$0.1730	6.3%	\$0.1803	4.2%	\$0.1896	5.2%	4.7%	

1.5.4 Proposed Rate Structure

LADWP has historically employed a structure of base rates and pass-through adjustment factors in combination with a “decoupling” mechanism to isolate the impact of reduced demand from energy conservation on overall revenues and enhance the Department’s financial stability. Pass-through adjustment factors typically reflect costs largely outside LADWP’s control, such as the market driven cost of fuel and regulatory mandates, but can also recover the costs of specific programs such as the PSRP. Employing these mechanisms in the rate design is a standard industry practice for both publicly owned utilities and Investor Owned Utilities (IOUs). The Department proposes only minor changes to the existing structure of the adjustment factors in the proposed rate design.

The base rates correspond to costs over which LADWP does have more control. In addition, decoupling is proposed to ensure the Department has an incentive to undertake conservation and provide incentives for renewable energy without the risk of not covering its largely fixed costs. A decoupling mechanism tracks whether fixed costs are being recovered in base rates and provides a means to adjust rates accordingly to prevent under or over-recovery of costs. This approach is also standard practice for many utilities. Figure 5 provides a visual depiction of this general rate structure.

Figure 5: Proposed Electric Rates Structure



Residential Rate Structure Changes

Changes to the Residential rate structure are meant to provide the correct cost signals for conservation and sustainable technology adaption. The major change is the addition of a new Residential monthly tiered fixed charge tied to the level of monthly consumption by the existing rate tiers. The new tiered fixed charge is based on the same levels of consumption as the current rate tiers and two temperature zones as depicted in Figure 6.

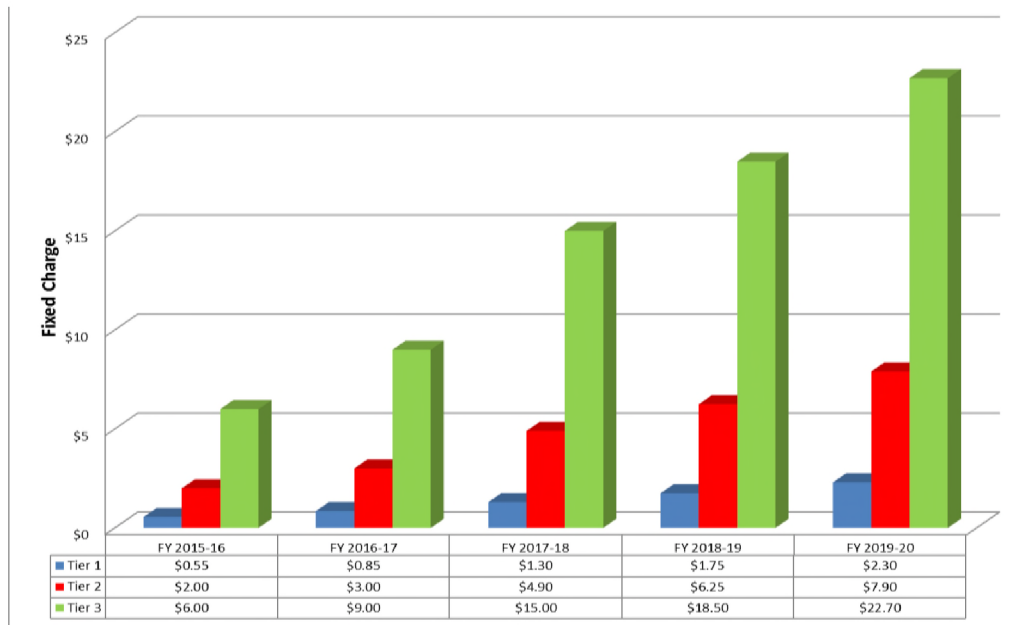
Figure 6: Proposed Thresholds for Residential Monthly Tiered Fixed Charge

	Zone 1 Monthly Usage (kWh)	Zone 2 Monthly Usage (kWh)
Tier 1	0 ≤ and ≤ 350	0 ≤ and ≤ 500
Tier 2	350 < and ≤ 1050	500 < and ≤ 1500
Tier 3	> 1050	> 1500

All three major California Investor Owned Utilities (IOUs) are planning to implement substantial increases to their fixed monthly charges or minimum bill charges; however, at the time of this report, the California Public Utilities Commission (CPUC) is still in the process of determining a final ruling (proceeding R-12-06-013).

The implementation of a tiered fixed charge recognizes that a significant amount of a power utility’s cost is fixed and that sole reliance on usage based energy charges does not adequately align rates with costs. The new tiered fixed charge will be phased in over five years to provide a gradual transition of rates so that customers can adapt their usage patterns to the new structure and so that lower usage customers do not experience a significant increase in overall rates at any one time. A graphical depiction of the proposed monthly tiered fixed charge increase over the five-year rate period is shown in Figure 7.

Figure 7: Proposed Residential Monthly Tiered Fixed Charge



Commercial and Industrial Rate Structure Changes

The general rate structure of proposed Commercial and Industrial rates will not change but will reflect the need to meet increasing costs over the five-year phase in period. Also, increases in the energy rates over the five-year period reflect anticipated market changes. The service and generation demand rates remain constant as costs are unchanged from previous rates. The facility demand rate increases slowly due to increased costs to help maintain and improve reliability of the distribution infrastructure. These changes are designed to balance increased revenues with providing incentives for solar and other distributive generation technologies. An overview of the elements that make up a Commercial and Industrial customer’s rates are shown in Figure 8. Detailed descriptions and rate impacts by customer class are discussed in Chapter 5.

Figure 8: Major Elements of LADWP Electric Commercial and Industrial Rate Design

	Small Commercial (Small General Service A1A)	Medium Commercial (Primary Service A2B)	Large Commercial and Industrial (Sub-transmission A3A)
Fixed Charges	Service charge	Service charge	Service charge
Capacity Charge (\$/KW)	Facilities charge	Facilities charge and monthly demand charge	Facilities charge and monthly demand charge
Energy (Usage) Charges (\$/kWh)	Based on season	Based on season and Time of Use (TOU)	Based on season and TOU
Voltage by Class	≤ 4.8 kV	4.8 kV	34.5 kV

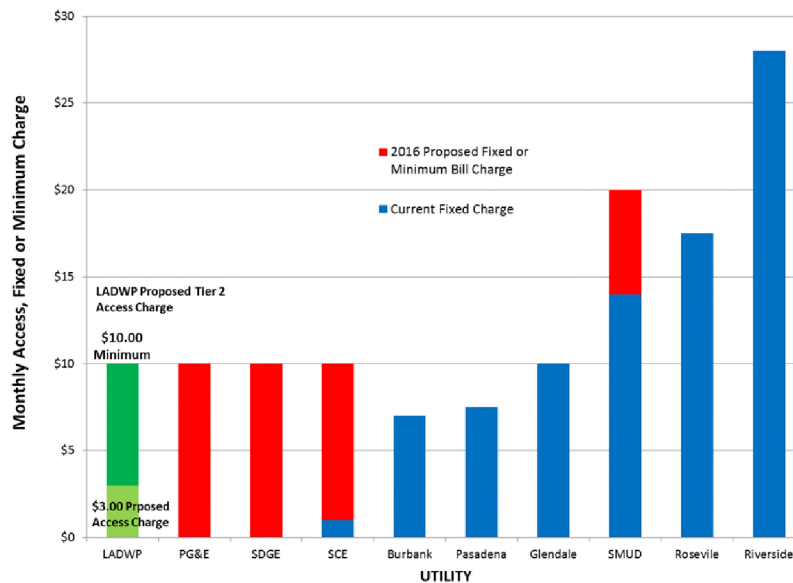
1.5.5 Peer Utility Rate Comparisons

In preparing the rate proposal, LADWP reviewed industry trends and how the proposed rate structure and rates would compare to other utilities. As discussed above, the main proposed structural change is the addition of a new Residential monthly tiered fixed charge.

All three major California Investor Owned Utilities (IOUs) have proposed to implement new customer fixed charges of \$10.00 per month by 2017. Other public utilities are also implementing larger monthly charges. It is important to note that LADWP’s implementation of a tiered fixed charge avoids the disproportionate effect of a single large monthly charge on lower usage customers. Figure 9 provides a comparison of utility current or proposed Residential fixed charges⁶ in 2017 based on current rates or proposed rate changes that have already been announced (based on the proposed tier 2 rate). As shown by the chart, LADWP’s monthly fixed charge level is reasonable.

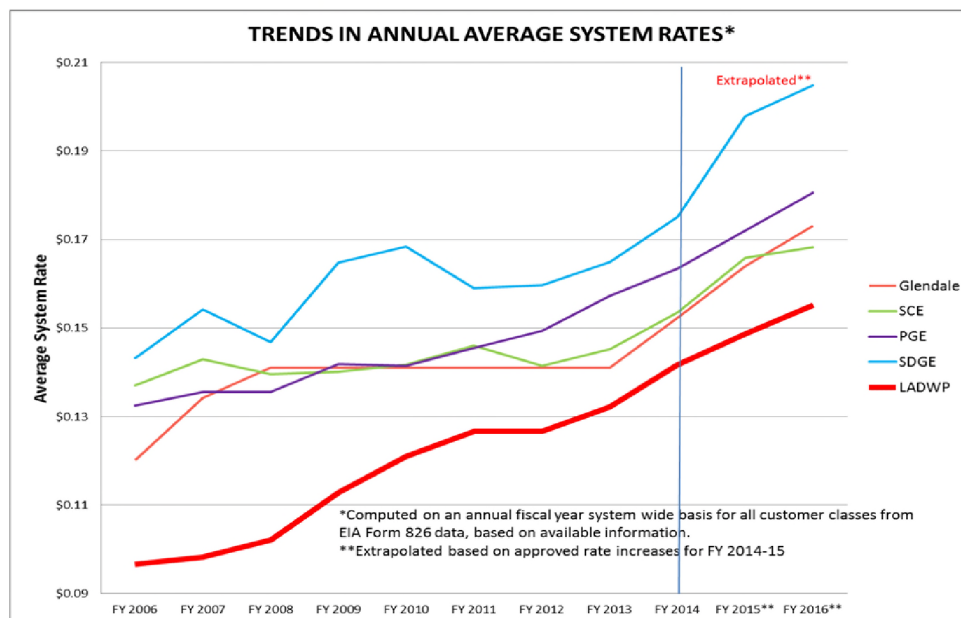
⁶ Riverside has a fixed charge of \$8.00, plus a reliability charge of \$20.00 for a medium-sized residence.

Figure 9: Comparison of Peer Utility Residential Customer Fixed Charges (2017)



The second major change in LADWP's rates is the overall rate change during the five-year period. Figure 10 compares LADWP system average rates (total system retail revenue divided by total retail sales) to the system average rates for several other California utilities. LADWP's system average rates are presently lower than its peers.

Figure 10: Comparison of California Utility System Average Rate Levels



The Department proposes an annual system average rate increase of 4.68% over the five-year rate period.

The three major California IOUs have all increased rates recently and have announced intentions to continue this trend. These utilities have experienced significant cost increases for similar reasons as LADWP, such as compliance with the California renewable energy targets.

1.5.6 Summary of Proposed Rate Changes

The following is a summary of the major changes:

- Phased in rate change over five years averaging 4.68% per year to moderate the impact of the changes on customers;
- Addition of a monthly tiered fixed charge for Residential customers to reflect the industry trend of transitioning the rate structure to be more in line with the cost structure;
- Continuation of decoupling and a combination of base rates and pass-through adjustment factors with only minor changes to help maintain financial stability;
- Continuation of the Incremental Electric Rate Ordinance approach based on legal considerations; and
- Continuation of the current Commercial and Industrial rate design with continued NEM to provide incentives for additional distributed generation programs.

1.6 SUMMARY OF MAJOR ACCOMPLISHMENTS SINCE LAST RATE ACTION

Since the last base rate action in 2012, the LADWP Power System has made significant accomplishments in regulatory compliance, cost reduction and infrastructure investment. These accomplishments include, but are not limited to, the following:

- Working with the Ratepayer Advocate – LADWP has been working closely with the Ratepayer Advocate (RPA), holding bi-weekly meetings since July 2013. In these meetings, many major aspects of LADWP’s financial plans have been reviewed, including monthly cash/variance reports, major capital projects, and other major items.
- Labor agreement – In September 2013, union workers approved revisions to the contract between the union and the Department. From October 2014 to September 2017, LADWP will save approximately \$456 million from the new contract.
- Cost Reduction Plan and other cost-saving reductions – From February 2011 to June 2014, the Department implemented a multiyear, enterprise-wide cost reduction plan that focused on initiatives that would have a quick and measurable impact on the Department’s expenses to help keep rates reasonable in light of industry-wide operational, regulatory and financial challenges, exceeding its original \$459 million target by \$7.8 million.

- Benchmarking – In February 2015, the Department completed an initial high level benchmarking study. The study identified areas where LADWP is comparable to or better than industry performance and where LADWP has opportunities for improvement. This high level study provided a “roadmap” that will help identify areas for further study and analysis.
- Major Power System investments – Major investments have been made to improve the Power System operations in the areas of renewable energy supply, transitioning off coal, rebuilding local power plants, energy efficiency, infrastructure, and local solar programs.
- Greenhouse gas (GHG) emissions reductions – Through the growth of renewable generation sources, the expansion of energy efficiency and customer solar programs, and several other key environmental initiatives such as electric vehicles, demand response, and smart metering, LADWP has made significant progress in reducing its environmental footprint. GHG emissions levels for 2013 were 14.3 million metric tons (MMT), which is 20% below 1990 levels.
- Electric Vehicles – The Department’s electric vehicle program, “Charge Up LA! - Home, Work, and On The Go” has installed electric vehicle charging stations throughout Los Angeles and awarded thousands of customer and commercial rebates for charging station installation.
- Integrated Resource Planning (IRP) – The IRP was updated in December 2014 and is intended to drive the priorities, financial planning, and budgeting effort for the Power System as it considers a 20-year planning horizon. The overriding purpose is to provide a framework to assure the future energy needs of Department customers are met in a manner that balances superior reliability and supply of electric service, competitive electric rates consistent with sound business principles, responsible environmental stewardship exceeding all regulatory obligations, and a focus on the customer.
- Financial planning to avoid rate increases – Refinancing, regulatory asset treatment, gas hedging, and reduced labor expenses have contributed to reducing the costs of operations.

Many of the benefits realized continue to be ongoing. Process improvements and other cost savings opportunities have become a major strategic focus area for LADWP.

1.7 ANALYSIS OF ALTERNATIVES

In order to understand the sensitivity of the rate plan to the assumptions and risks outlined in Section 1.3 and the potential impact of delaying or altering the proposed rate action, LADWP has developed a series of sensitivity analyses in conjunction with the Ratepayer Advocate. These analyses indicate that the financial plan assumptions and proposed rates are the optimal solution for customers, stakeholders and LADWP itself. Any delays in the rate action would either result in a deterioration of the financial metrics (which would negatively impact the Department’s ability to borrow) or necessitate spending cuts that would prevent LADWP from

making critical investments in infrastructure, regulatory mandated programs and sustainable electric transformation. The results of the scenario analyses are summarized in Chapter 3.

1.8 BEYOND THE FIVE-YEAR PROPOSED RATE PLAN

The Department will continue to assess rate and revenue requirements associated with both externally mandated costs as well as various levels of funding for other programs for FY 2020-21 and beyond. Costs for these time periods are still subject to uncertainty but are anticipated to require future adjustments in rates. According to the current financial plan, a system average rate increase would be expected for FY 2020-21 to keep up with increasing revenue requirements that support the programs discussed in this report. However, budgets and other program specifics for FY 2020-21 are currently preliminary.